

Rochester DX Association



November Meeting Presentation

“The Priceless Gems of DX & Contesting Experience”

Tuesday, November 18, 7:30pm

Monroe County EOC
1190 Scottsville Road

At a meeting, you've maybe heard little gems like *"...and of course don't forget to check for the xxxx at yyyy,"* or *"make sure you're pointed N/E/W/S for so and so in the early morning."*

I always perceived those as the hard-earned treasures of someone who's "been there" and remembers what it takes and what works. Unfortunately, I soon forget them, wishing I'd jotted them down.

Well, we've all got another chance at this month's meeting. **Chris K2CS**, agreed to pull together a small compendium of DX and Contest facts learned over time, and pass them along. Even for the more experienced, there might be a new nugget to mine.

And speaking of more experienced, others will be welcome to toss in tips of their own. We all benefit!!

This is one you have to make!

From The President

Welcome to “contest” and “DX” heaven!

Several contests in the books and several yet to come.

For those non-contesters, there has been some rare DX activations and the bands have been cooperating for places in the world we seldom get to work. Never thought I'd be working DU on 12m...

The recently completed FT4 (FR/T) operation got many a much needed entity, last time around for them were several years ago (and may not be on again for many more).

I never really “prepared” for this time out having worked them before but did manage to log a 17m SSB QSO a day before they closed up shop. It looks like many RDXA members got them on 20m early on.

One thing that always gets me is the choice of band/mode. This time out it seemed SSB and RTTY took many of the “open to us” operating time. Now, it may be that's when I was able to look for them as I indicated, I didn't really focus on it (as I had for VK9, etc) but only got in CW pileups one time. They changed to a “not open to us” band so that was that. Seemingly, W6 & 7 should be VERY happy.

By the way, my much commented on Christmas Island and “lack thereof” now has them in the log 3 times in the last year, 3 different DXpeditions. You just have to love this hobby.

RDXA has chosen to “sponsor” Tromelin as well as the upcoming Navassa DXpedition. K1N will begin operations in January of 2015 and in some polls, it's #1 on the most wanted list. They anticipate being active for 14 days and with our geographical proximity to the island, I'd suspect most will be able to log them several times (so maybe, unlike FR/T, we'll beat out the W6 & 7's !!). Just think 6m and 160m, real

possibilities...

As I write this, it's supposed to be 65 deg tomorrow and normally you'd think to fix the outdoor stuff then. Interestingly though, I find a “fair weather” repair usually fails – wait until it's 10 below and work on your antennas then...

Congratulations to the crew of this years NYQP as we've exceeded past years log submission totals. Always a fun contest and many commented on increased participation. Seems rover and portable operations was up as well and last we knew, all counties were represented AND active.

Thanks to Mike, N2UJN and Irv, AF2K for handling finances and continuing the separation of the respective accounts.

Mark your calendars for the upcoming Holiday Dinner which will be held at Rick's Prime Rib on 16 December, 2014. Thanks to Nikki Huntgate (XYL of Vice President Brent, KC2QLJ) for handling the details.

Please keep close the family of longtime member and past president Paul Mackanos, K2DB in your thoughts as Paul senior, WB2LSI has been called to meet his maker. It's been great to see Mr. Mackanos at many recent club functions. Always available for a conversation, he truly loved this hobby and always spoke very fondly of it.

As always, please submit your logs crediting the Rochester (NY) DX Assn as your club and add your “trials and tribulations” to the club contest grid.

See you in the pileups,

Best DX es 73,

Chris, K2CS

Forget the crabs, Christmas Island is ham radio heaven

Ben Collins, ABC Kimberley, Australia

The Polish visitors came with unusually heavy baggage, loaded with receivers, transmitters, and antennas tens of meters long. It was an arduous journey from Prague to Dubai, then to Jakarta, before the final leg to the dot in the North West Indian Ocean that is Christmas Island; over 40 hours in transit. But the usual activities centering on Christmas Island's unique wildlife, dominated by thousands of bright red crabs, were not a high priority for these unusual visitors. The group of friends have regular Polish names, but they prefer their call signs. "I am mostly known under my shortwave call sign, which is 'Sugar-Papa-Six-Echo-Queen-Zulu'" Wodak Helej told Alexia Attwood for North West WA Mornings.

Radio days

It's arguably an obsession from another time. When Mr Helej was growing up in Poland, radio was cutting edge technology. "I was born in a small city in 1951... There was only one telephone in the whole city." He developed an obsession with the invisible waves that connected him to the rest of the world. Over 50 years later, he's still passionate about his hobby. "We are a group of friends, about nine persons altogether, who go each year to a different place to make the connection with the people, with amateur radio hams, all over the world," he said. While St Brandon Island, St Eustatius, Mauritania, St Vincent and the Grenadines, may be exotic destinations, for Mr Helej they're DX-pedition locations. 'DX' refers to the telegraphic shorthand for 'distance', and a DX-pedition is a trip to a remote location by amateur radio operators. The aim of a DX-pedition can vary widely depending on what

branch of amateur radio an operator is passionate about. Mr Helej is a collector of transmissions from around the world. "Some people are looking for, and collecting new countries, and this is the most exciting from my point of view. I have collected 340 countries out of 347, so only a few are left. The most wanted is North Korea where it is forbidden to use the radio at all." Many tourists fish the deep blue waters around Christmas Island, but ham radio enthusiasts trawl the airwaves with large antennas, searching for an unusual signal bouncing through the atmosphere. "You need to know the physical rules about the propagation which depends on the sun, generally speaking," Mr Helej said.

Radio star

While in Christmas Island, Mr Helej and his companions took part in an international amateur radio competition and won. The winning formula explains the value to ham radio of an island that could be described as being the middle of nowhere. "There's a special calculation that scores the more connection you have with more countries, in the more remote regions of the world." The Polish team of radio enthusiasts eventually gave themselves some free time on the island, only to find the famed red crabs weren't as reliable as an old-fashioned radio signal. "I expected to see the red crab migration but it is postponed until next month."

Giant sunspot returns — and it's bigger and badder than ever

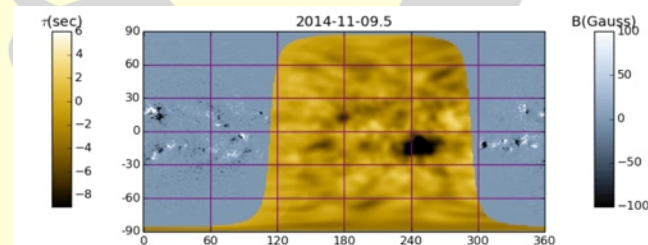
Paul Cally, Professor of Solar Physics at Monash University

The largest sunspot seen in 24 years is rotating back to face the Earth, and it looks to have grown even bigger. Last month, the solar active region known as AR12192 (also known as AR2192 to some of its friends) [entertained the world](#) with the sunspot clearly visible with the naked eye (with some appropriate and approved solar-watch or eclipse dark glasses, of course), and produced a series of large flares. But after spending some time over on the far side of the sun, it hasn't finished impressing us yet. AR12192 is due to rotate back onto our side of the sun today (November 12) and it has grown. Because of its size, the leading edge would actually have appeared about a day earlier. Charles Lindsey, of North West Research Associates (NWRA) in Boulder Colorado (and a frequent visitor to Monash University in Australia), has been following the progress of AR12192 since it disappeared around the west limb of the sun a couple of weeks ago, and found that it has grown significantly. The sun rotates about once every 27 days as viewed from the Earth, so we haven't been able to see AR12192 directly since then. But using the helioseismology technique [acoustic holography](#) that Dr Lindsey and his colleague Doug Braun developed, they can "see" large active regions on the far side by [computationally regressing oscillations](#) (waves) observed on the nearside back to their sources.

Drs Lindsey and Braun's far side imaging technique is now routinely used to keep an eye on active regions popping up or developing on the other side of the sun. The image (above) shows a seismic reconstruction of the far side (in yellow) with a very clear and very large active region in the southern hemisphere. This is AR12192.

Why all the activity?

So, what is an active region, and how does it relate to sunspots? Active regions are huge agglomerations of magnetic field that bubble up to the surface from deep in the sun's interior. Sunspots are the areas of strongest field, up to about 3,000 Gauss. To put that in context, the Earth's magnetic field is around half a Gauss. The magnetic field largely inhibits the boiling convection normally seen across the solar surface. Convection is the mechanism that carries most of the energy from the nuclear furnace in the core through the outer 29% of the sun. That is why sunspots appear dark; magnetism halts the conveyor belt. The sun is currently near the maximum of Solar Cycle 24 — the 24th cycle of solar activity since detailed recording began in 1755. Sunspot number rises and falls on a roughly 11-year cycle, and although Cycle 24 is very weak compared to others in the last century, it can still produce a doozy of a spot. But active regions don't just give us sunspots. They also produce flares, the most energetic events in the solar system.



Far side image of AR12192 in the yellow tinted section which we only 'see' using helioseismology. [Stanford University's Joint Science Operations Center](#)

Giant sunspot returns — and it's bigger and badder than ever (Cont'd)



The bright light in the centre of the image shows an X-class solar flare on October 26, 2014. This was the third X-class flare in 48 hours. [NASA's Solar Dynamic Observatory](#)

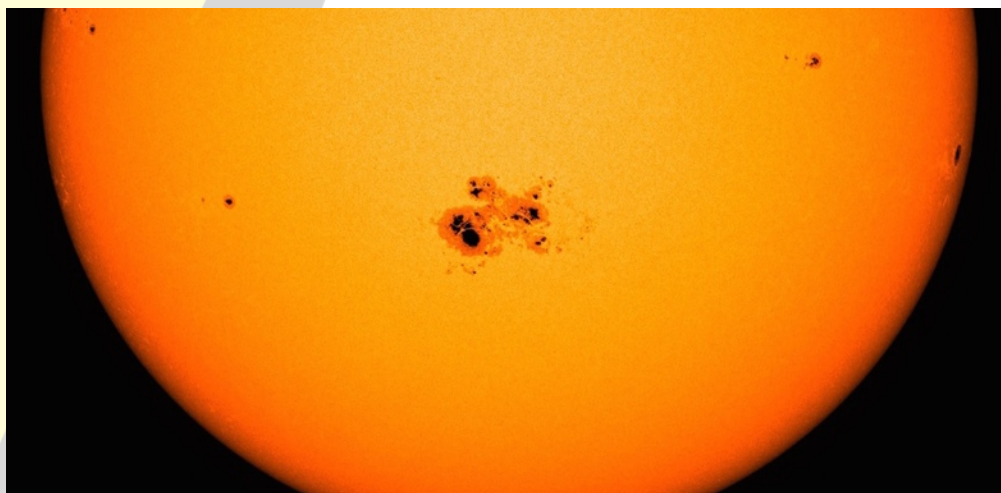
Flares occur when the complex magnetic field twists and stretches to such an extent that it snaps, like a rubber band breaking, and then reconnects to other field lines. This releases huge bursts of energy over several minutes, up to 6×10^{25} Joules for the largest X-class flares. This is about 100,000 times the total energy usage of humans in a full year. Coronal mass ejections ([CMEs](#)) also commonly emerge from active regions. These are massive bubbles of gas, weighing as much as 100 billion kg, that burst into space at up to 1,000 km per second, carrying huge loads of charged particles and

magnetic flux. CMEs are often – though not always – associated with flares, and flares may or may not have accompanying CMEs. A flare that doesn't is termed “ordinary”.

On its first pass, the huge AR12192 was comparable in size to Jupiter and produced several (ordinary) [X-class flares](#) and many smaller ones, but no large CMEs. But Hugh Hudson of Space Sciences Laboratory at Berkeley, California, notes that older active regions tend to produce more CMEs, so he is expecting a big CME show this time around.

Impact on Earth

But what does this mean for us on Earth? CMEs in particular can have a massive impact on the Earth's magnetosphere, causing stunning aurorae, power blackouts, interruptions to telecommunications and damage to satellites in orbit. The so-called Carrington flare of 1859 produced aurorae visible in Queensland, and damaged telegraph stations around the world. Our modern technological world is far more vulnerable. So, if AR12192 launches any large CMEs in our direction when it comes around to our side, we'd better batten down the hatches. That can mean disconnecting long-distance power grids, placing satellites in safe mode and rerouting aircraft on polar routes.



W2RDX & W2AN

**Congratulations to the 2014 Field Day team
for winning category 3A!**



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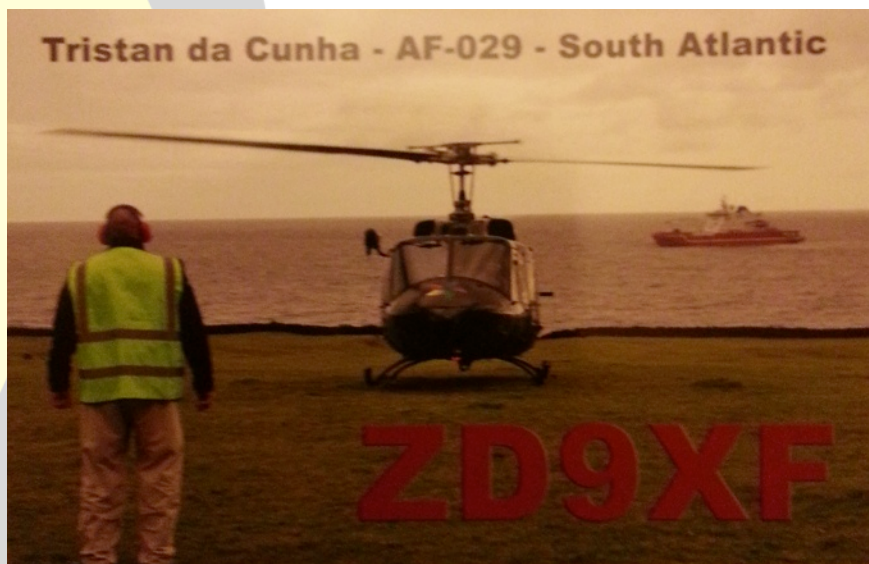
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Rochester DX Association

Club Station — W2RDX

Club Website — <http://www.rdx.com>

This Bulletin is the official publication of the Rochester DX Association and is published monthly, September through June. Email your articles, tips, ham ads, etc. to Andrew, W2FG at andrew.lesny@gmail.com by the second Tuesday of the month for inclusion in that month's issue.

All those with an interest in amateur radio and DXing and contesting are cordially invited to any meeting and to join RDXA. Meetings are held at 19:30 Local time on the 3rd Tuesday of each month, September through June.

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Appointed Positions

Webmasters.....Carey Magee, K2RNY

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Membership ChairmanDan Guyor, N2DD

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Membership Dues can be sent to:

Mike Sanchez, N2UJN.

Regular Membership \$20.00

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Lifetime Membership \$200.00

Any other correspondence to: Mike Sanchez, N2UJN



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Join us for our pre-meeting get-together, starting at 6PM

